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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/125,128	08/11/1998	YUICHIRO IGUCHI	1084-98	7453

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IP DEPARTMENT OF PIPER RUDNICK LLP
3400 TWO LOGAN SQUARE
18TH AND ARCH STREETS
PHILADELPHIA, PA 19103

EXAMINER

CLEVELAND, MICHAEL B

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 01/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/125,128

Applicant(s)

IGUCHI ET AL.

Examiner

Michael Cleveland

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,33 and 58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,33 and 58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/5/2003 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 33 and 58 are rejected under 35 U.S.C. 102(b) as being anticipated by Norris et al. (U.S. Patent 5,556,665, hereafter '665).

'665 teaches an apparatus for producing a display (col. 1, lines 5-9), comprising:

a tubule (i.e., nozzle) deposition system having a multiplicity of outlet holes (col. 2, lines 29-40 of average diameter of, for instance, 20 microns (col. 3, lines 11-12), for at least one color of red, green, or blue (col. 2, lines 46-52) to face a plurality of spaced apart barrier ribs located on a substrate (The ribs may be deposited by tubules immediately ahead of the phosphors or preformed on the substrate (col. 2, lines 29-40).), wherein a phosphor suspension (i.e., paste) (col. 2, lines 47-49) supply is operatively connected to the nozzle deposition system (col. 2, lines 60-65) supply paste to the substrate from all of the holes for the colors at the same time (See Fig. 6e and col. 3, lines 46-60), and a means for moving the substrate and the nozzle deposition system relative to each other (col. 3, lines 46-60).

Claim 58: The device may comprise three separate manifolds (i.e. coating devices) 33, 35, and 37 for the three colors (col. 2, lines 60-65).

Claims 33 and 58: '665 does not explicitly teach using the apparatus to form a plasma display, but a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the

claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). The apparatus of '665 is capable of depositing red, green, and blue pastes for a plasma display instead of for a cathode ray tube display.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 33, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norris '665 in view of Miyake et al. (U.S. Patent 5,136,207, hereafter '207).

'665 teaches a method for producing a video display (col. 1, lines 5-9), comprising:
applying, in stripes between barrier ribs (which may be deposited by tubules immediately ahead of the phosphors or preformed on the substrate (col. 2, lines 29-40)), a phosphor suspension (i.e., paste) (col. 2, lines 47-49) containing a phosphor powder (col. 3, lines 12-14) onto a substrate having a plurality of the barrier ribs formed thereon (col. 2, lines 29-39) from a multiplicity of tubules (i.e., outlet holes of a nozzle deposition system) (col. 2, lines 29-40) of average diameter of, for instance, 20 microns (col. 3, lines 11-12), for at least one color of red, green, or blue (col. 2, lines 46-52) such that the paste flows to the substrate from all of the holes for the colors at the same time (See Fig. 6e and col. 3, lines 46-60) and between the barrier ribs (Fig. 1).

'665 does not explicitly teach that the display is a plasma display nor that the phosphor suspension contains an organic compound.

However, the Examiner takes Official Notice that plasma displays are notoriously well known video displays that use red, green, and blue phosphor stripes between barrier ribs. See for instance, '207, col. 1, lines 5-12, col. 6, lines 41-60, and Figs. 7-8. The selection of something

based on its known suitability for its intended use has been held to support a *prima facie* case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the method of '665 to have deposited the red, green, and blue phosphors of a plasma display as the particular type of video display because plasma display are well known in the art as suitable display panels that use red, green, and blue phosphor stripes between barrier ribs.

Also, '207 teaches that operative phosphor pastes may contain organic binders and/or solvents (col. 4, lines 49-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used an organic solvent or binder in the suspension of '665 because '207 teaches that organic binders and solvents are operative carriers for depositing phosphor pastes.

Claim 2: '665 does not explicitly teach heating the panel. '207 teaches that heating the panel after coating with a phosphor paste improves the luminance of the phosphors (col. 4, lines 36-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have heated the substrate of '665 and '207 after deposition because '207 teaches that such heating improves the luminance of the phosphor compositions.

Claim 58: The device may comprise three separate manifolds (i.e. coating devices) 33, 35, and 37 for the three colors (col. 2, lines 60-65).

Claims 33 and 58: '665 does not explicitly teach using the apparatus to form a plasma display as discussed above, but '207 renders the use of the method to form a plasma display as the particular video display obvious, as discussed above regarding claim 1.

Response to Arguments

6. Applicant's arguments, see response pp. 4-6, filed 12/5/2003, with respect to the rejection(s) of all claim(s) under 35 USC 112, 102, and 103 have been fully considered and are persuasive in view of the amendments, cancellations, and arguments. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Norris '665.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cleveland whose telephone number is (703)308-2331. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck, can be reached at (703) 308-2333.



Michael Cleveland
1/21/04